

WHAT IS CLAIMED IS:

1. A foldable treadmill, comprising:

a tread assembly having front and rear ends and spaced-apart longitudinal sides extending therebetween; and

an A-frame assembly positioned about the front end of the tread assembly, including

5 a front support having an upper end and a lower end that serves as a floor contact,

an intermediate support having an upper end hinged to the front support and a lower end that serves as a floor contact,

an inclination support having a first end hinged with respect to the front support, thereby defining a first axis of rotation generally parallel with a lateral axis of the tread
10 assembly, and a second end hinged to the front end of the tread assembly, thereby defining a second axis of rotation generally parallel with the lateral axis of the tread assembly, and

an intermediate constraint having a first portion operatively attached to the intermediate support and a second portion operatively attached to structure spaced from
15 the intermediate support;

wherein the inclination support is rotatable about the first axis of rotation such that the second end of the inclination support vertically displaces the front end of the tread assembly thereby varying the inclination of the tread assembly, and the tread assembly is rotatable about the second axis of rotation to a generally vertical orientation.

2. A foldable treadmill as defined in claim 1, wherein the A-frame assembly further includes a vertical constraint extending between upper ends of the front and intermediate supports and configured to restrict relative vertical displacement of the upper ends of the front and intermediate supports such that the both upper ends vertically displace about the same
5 distance during a reorientation of the tread assembly.

3. A foldable treadmill as defined in claim 1, wherein the A-frame assembly further includes a handle assembly having an upper portion having handles and a lower portion attached to the inclination support or to the front end of the tread assembly such that rotation of the inclination support about the first axis of rotation causes the handle assembly to vertically
5 displace.
4. A foldable treadmill as defined in claim 1, further comprising a motor configured to rotate the inclination support about the first axis of rotation such that the second end of the inclination support vertically displaces the front end of the tread assembly thereby varying the inclination of the tread assembly.
5. A foldable treadmill as defined in claim 1, wherein either the first or the second portion of the intermediate constraint is slidably attached to its prescribed structure.
6. A foldable treadmill as defined in claim 1, wherein the front support defines an elongated aperture, and the A-frame further includes a handle assembly including an upper portion having handles and a lower portion slidably disposed in the aperture of the front support.
7. A foldable treadmill as defined in claim 1, wherein the intermediate support includes two upstanding legs, each disposed on a corresponding longitudinal side of the tread assembly; further comprising a second intermediate constraint, wherein the first and second intermediate constraints are each slidably attached to a corresponding leg of the intermediate support and
5 attached to the corresponding longitudinal side of the tread assembly.
8. A foldable treadmill as defined in claim 7, wherein the front support includes two upstanding legs spaced apart with one another and a reinforcement extending therebetween, each leg positioned behind and generally aligned with a corresponding upstanding leg of the intermediate support.
9. A foldable treadmill as defined in claim 8, wherein the A-frame assembly further includes two vertical constraints, each extending between upper ends of corresponding legs of the front and intermediate supports, the vertical constraints configured to restrict relative vertical displacement of the upper ends of the front and intermediate supports such that the both upper
5 ends vertically displace about the same distance during a reorientation of the tread assembly.

10. A foldable treadmill as defined in claim 9, wherein the A-frame assembly further includes a handle assembly having upper portion having hand supports and a lower portion attached to the inclination support or the front end of the tread assembly such that rotation of the inclination support about the first axis of rotation causes the handle assembly to vertically
5 displace.

11. A foldable treadmill as defined in claim 10, wherein the vertical constraints are slidably attached to the handle assembly.

12. A foldable treadmill, comprising:

a tread assembly having front and rear ends and spaced-apart longitudinal sides extending therebetween;

an A-frame assembly positioned about the front end of the tread assembly, including

5 a front support having an upper end and a lower end that serves as a floor contact,

an intermediate support having an upper end hinged to the front support and a lower end that serves as a floor contact,

10 an inclination support having a first end hinged with respect to the front support, thereby defining a first axis of rotation generally parallel with a lateral axis of the tread assembly, and a second end hinged to the front end of the tread assembly, thereby defining a second axis of rotation generally parallel with the lateral axis of the tread assembly,

15 a vertical constraint extending between the upper ends of the front and intermediate supports and configured to restrict relative vertical displacement of the upper ends of the front and intermediate supports such that the both upper ends vertically displace about the same distance during a reorientation of the tread assembly,

an intermediate constraint having a first portion operatively attached to the intermediate support and a second portion operatively attached to structure spaced from the intermediate support, and

20 a handle assembly having upper portion having handles and a lower portion
attached to the inclination support or to the front end of the tread assembly such that
rotation of the inclination support about the first axis of rotation causes the handle
assembly to vertically displace; and

25 a motor in motive contact with the inclination support and configured to rotate the
inclination support about the first axis of rotation such that the second end of the inclination
support vertically displaces the front end of the tread assembly thereby varying the inclination of
the tread assembly; wherein the tread assembly is rotatable about the second axis of rotation to a
generally vertical orientation.

13. A foldable treadmill as defined in claim 12, wherein either the first or the second portion
of the intermediate constraint is slidably attached to its prescribed structure.

14. A foldable treadmill as defined in claim 12, wherein the intermediate support includes
two upstanding legs, each disposed on a corresponding longitudinal side of the tread assembly;
further comprising a second intermediate constraint, wherein the first and second intermediate
constraints are each slidably attached to a corresponding leg of the intermediate support and
5 attached to the corresponding longitudinal side of the tread assembly.

15. A foldable treadmill as defined in claim 14, wherein the front support includes two
upstanding legs spaced apart with one another and a reinforcement extending therebetween, each
leg positioned behind and generally aligned with a corresponding upstanding leg of the
intermediate support.

16. A foldable treadmill as defined in claim 15, wherein the A-frame assembly includes a
second vertical constraint, each the vertical constraints extending between upper ends of
corresponding legs of the front and intermediate supports, the vertical constraints slidably
attached to the handle assembly.

17. A foldable treadmill, comprising:

 a tread assembly having front and rear ends and spaced-apart longitudinal sides extending
therebetween;

an A-frame assembly positioned about the front end of the tread assembly, including

5 a front support having an upper end and a lower end that serves as a floor contact,
the front support defining an elongated aperture,

 an intermediate support having an upper end hinged to the front support and a
lower end that serves as a floor contact,

10 an inclination support having a first end hinged with respect to the front support,
thereby defining a first axis of rotation generally parallel with a lateral axis of the tread
assembly, and a second end hinged to the front end of the tread assembly, thereby
defining a second axis of rotation generally parallel with the lateral axis of the tread
assembly,

15 an intermediate constraint having a first portion operatively attached to the
intermediate support and a second portion operatively attached to structure spaced from
the intermediate support, and

 a handle assembly including a upper portion having handles and a lower portion
slidably disposed in the aperture of the front support; and

20 a motor in motive contact with the inclination support and configured to rotate the
inclination support about the first axis of rotation such that the second end of the inclination
support vertically displaces the front end of the tread assembly thereby varying the inclination of
the tread assembly; wherein the tread assembly is rotatable about the second axis of rotation to a
generally vertical orientation.

18. A foldable treadmill as defined in claim 17, wherein the A-frame assembly further
includes a link in motive contact with the handle assembly such that movement caused by the
motor vertically displaces the handle assembly.

19. A foldable treadmill as defined in claim 17, wherein either the first or the second portion
of the intermediate constraint is slidably attached to its prescribed structure.

20. A foldable treadmill as defined in claim 17, wherein the intermediate support includes

two upstanding legs, each disposed on a corresponding longitudinal side of the tread assembly; further comprising a second intermediate constraint, wherein the first and second intermediate constraints are each slidably attached to a corresponding leg of the intermediate support and
5 attached to the corresponding longitudinal side of the tread assembly.

21. A foldable treadmill as defined in claim 17, wherein the front support includes two upstanding legs spaced apart from one another and a reinforcement extending therebetween, each leg defining an elongated aperture for receiving corresponding legs of the handle assembly.

22. A foldable treadmill as defined in claim 21, wherein the A-frame further includes two links in motive contact with the handle assembly such that movement caused by the motor will vertically displace the handle assembly, each link attached to a corresponding leg of the handle assembly through a slot defined in the corresponding leg of the front support.